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The second objection, which involves the question of Russia's need for the Ukrainian ports of the Black Sea and the Sea of Azov, is readily refuted by Russian maritime history.

Great Russia Not Dependent on the Black Sea Ports

We grant that, to the casual thinker with little or no knowledge of the trade routes of modern commerce, it may at first appear that Russia cannot live without southern ports, but, while it is true that more than half of the maritime exports of former Russia were on the Black Sea and the Sea of Azov, those who present this argument forget that the Ukrainian exports composed nearly half of those of the whole Russian Empire. It has already been proved that ethnic Ukraine shipped about two-thirds of the total amount of cereals. If we take these facts into consideration, we must conclude that it was the Ukraine which used the southern ports and not Russia. Nor did Russia export much of her merchandise by way of the Black Sea. The official Russian statistics of the traffic of merchandise by rail show no southern port except Rostov-on-the-Don, which served as an outlet for the products of the territories situated north of the ethnic frontier of the Ukraine and Russia. As to Novorosseysk, that was always the port for the Cossacks of Kuban and of the northern Caucasus. Even the northern regions of the Ukraine, including the governments of Tchernihov, that of Poltava and a part of the government of Kharkov, sent their wheat by the ports of the Baltic and even by Libau and Koenigsberg.

Statistics indicate that imports have never been shipped in by way of the Black Sea to any great extent. The records of Russian foreign commerce for the year 1912 show that 80 per cent of the maritime imports of the old empire of Russia were made by way of the Baltic, so that even the Ukraine received much foreign merchandise by this route. The policy of the Russian Government was always in favor of Baltic ports, to the detriment of those on the Black Sea. Finally speaking, all Russian commercial policy, in which an important item was the railroad rates, was in favor of the Baltic ports.

504 Let us compare for a moment the regions for which the Black and the Baltic Seas serve as ports. That for which the Black Sea affords an outlet does not extend more than 500 or 600 kilometers, while that served by the Baltic ports reaches as far as western Siberia. Thus, the Baltic region exceeds that of the Black Sea by several thousand kilometers.

000 Surely these facts, coupled with even the most cursory consideration of the Russian imperialistic policy, show beyond a doubt that in respect to the direct economic utilization of the southern ports, the setting up of a separate government by the Ukraine does not obstruct any fundamental interests of the Russian people. Briefly stated, Russia proper does not use directly the southern ports except Rostov, which is the outlet of the region of the Don and in part of the lower region of the Volga, but there is not such a vast difference between the Russian and Ukrainian interests that these minor details as to a common use of various ports can not be conciliated by special agreement.

Coal Fields of Ukraine Not Necessary to Great Russia

316 433 Proceeding directly to the third and last question, that involving coal and iron, we are confronted first of all with the geographic fact that it is really within the ethnographic limits of the Ukraine that are found nearly all the coal fields of Donetz, as well as most of the productive centers of anthracite. More than 90 per cent of the total output of coal of the Donetz basin, during the last years of normal exploitation, came from the Ukrainian regions, while the total production of coal of the Donetz basin reached 70 per cent of the general production of coal of the old Russian Empire, and we may increase this to 85 per cent, if we do not include in the total the output of Russian [438] Poland. Notwithstanding these percentages of production, the general statistics of railroad traffic, together with the data collected by the Special War Committee on the Supply of Fuel, show that nearly four-fifths of the Ukrainian coal and anthracite was used in Ukraine, one-fifth only being exported to Russia.

e) the construction of a canal from the Dnipro, via the Desna and the Bolva (30 km) to the Zizdra and Oka, and so to Moscow and the Volga; 503

f) a canal between the Dnipro and the Donets, via Samara and Vovcha;

g) a connection between Danzig and the Black Sea via the Vistula and the Syan, linking up with the Dnister and perhaps the Prut;

h) a canal between the Caspian and the Black Sea, via the valley of the Manych, a tributary of the Don and the Sea of Oziv.

5. Sea Traffic

The position of Ukraine like a fan, spreading out from the Black Sea and the Sea of Oziv is particularly favorable for the export of mass products, while the coast of the Black Sea has not many natural harbors. Ports can, however, be built in the limans of the river-mouths. The coast of the Sea of Oziv is definitely unfavorable. It is only recently that harbor equipment has been mechanised and the harbors themselves improved. 133 504

Odessa is the third largest harbor in Russia, coming after Riga and Leningrad and lying in a bay 30 km north-east of the Dnister liman which is too shallow for shipping. The harbor is well constructed and freezes only for 2—3 weeks, which is easy to manage. Odessa is the only port in Ukraine where exports practically balance imports (in 1913: 2113 and 2061 t. average for 1930—1934: 1234 and 1550 thousand t). These figures refer to the total turn-over, in which figures for coastal trade exceed those for actual exports. In the former the import figures were higher and in the latter the export figures. 505

In Odessa grain forms the biggest part of the freight which also includes sugar, wood, methylated spirits and oil-cake. The imports are groceries, fruit, textile raw materials, chemicals etc. The town had become an important financial center with a stock exchange.

Mykolaiv on the liman of the Boh has a well built harbor with good connections with the hinterland. Grain and ore from 504

504 Kryvyj Rih and Nikopil are the chief exports, imports being much less significant.

[503] Since the harnessing of the rapids of the Dnipro, Kherson has developed quickly. The harbor lies on the Dnipro liman which is 60 km long, 5.20 km wide and 5—9 m. deep. Grain and wood are the most important freights handled.

Novorossiiske, the largest harbor in Northern Caucasia is the port for the grain from the Kuban and the Volga areas, and the wood that is transported by rail and on the Volga from Stalingrad, cement from the local factories etc.

Tuapse, in the most easterly area of Ukraine exports grain and, above all, petroleum from Maikop and valuable Caucasian wood. In Theodosia grain and fruit make up the freight while Sevastopil is exclusively a harbor for warships.

Mariupil, an artificial harbor, is the busiest port on the Sea of Oziv. Donets coal is transported for the Kerch furnaces and to countries abroad, also rocksalt from Artemivske and grain. The return freight consists partly of Kerch iron ore for the Donets Basin.

Rostov on the Don exports grain. It had grown at the expense of Taganrih even before the first World War.

Berdianske — not nearly so important as Rostov — owes its trade to the excellent wheat grown in the neighborhood. Henycheske and 10 other small ports play no great part in sea trade.

501 The Black Sea mercantile fleet was never very big: in 1913 it had only 416 steamers, 22 motor boats and 887 sailing ships with a total tonnage of 473 000 brt-. It only reached pre-war level under the second Five Year Plan. A large proportion of the trade with foreign countries was always carried on foreign ships. In 1934, for instance, there were far more Greek than native ships in the Russian ports on the Black Sea (with the exception of Odessa) — 1 350 000 net registered tons, 37 % of all shipping, compared with 760 000 net registered tons and 21 % native tonnage.

7:Bregy & Obolensky H-4, 5 (no date) 1940 RD1 Ukraine RD1

on this river was more than 80 per cent of the river tonnage of the whole country. The ports of the Dnieper had, before the Great War, 360 steamers and more than 1800 other boats. Timber, salt, and corn composed, and still composed to-day, the predominant part of the goods carried by the Dnieper.

The insufficient and incompetent management of the river ports and the small tonnage of the ships still do not allow one to-day to increase the river transport of the Ukraine to any noticeable extent.

On the other hand the geographical possibilities of sea transport are enormous. Excellent ports like Odessa and Nikolaiev, lying 600 kilometres from Constantinople and 1000 kilometres from Batoum, can assure the transport of export and import goods on a big scale and especially that of petrol from the Caucasus. Beside Odessa and Nikolaiev, the Ukraine still possesses other ports which are also favoured from a geographical and technical point of view, among them Marioupol, Berdiansk, and Kherson and some smaller ports of local interest.

We have noted that under normal conditions of economic exploitation the Ukraine, thanks to its agricultural and industrial potential, could be put on the level of the richest countries of the world. The continuation of the economic development of the Ukraine is conditioned by the existence of a stable outlet. If it is a question of a surplus of wheat, sugar, and other produce of the land, or of the products of industry, this surplus is to-day dependent on the consuming regions of the rest of Russia. The Ukraine, which consumes 85 per cent of its resources of energy and almost all its minerals in order to transform them locally into manufactured articles, is not only a source of raw materials, as is usually imagined.

206 471 have been opened and worked under their auspices and control. The most notable development has been in the districts of Bakhmut (Government of Yekaterinoslav), Lebedyenski (Kharkov), and Lokhivitski (Poltava). Mariupol and district has communication with Bakhmut and other places on the Donets coalfield. Otherwise trunk communication is confined to a line connecting Odessa, Nikolaev, and Kherson.

The instruments of private telephone installations are usually of the Bell Co.'s make. The State and the *zemstvos* have generally installed instruments made by Ericsson, Stockholm.

(2) External

(*a*) *Ports*

● 504 *Accommodation.*—The Ukraine is not lacking in good natural ports on the Black Sea: Odessa, Nikolaev, and Kherson are capable of handling great quantities of traffic. On the Azoy Sea, Berdyansk and Mariupol share the trade, but in their case purely artificial harbours have had to be constructed at great expense, as the coast has no natural harbour.

There are no tides, any variations of depth of water being caused by wind of great force or long persistence from one quarter.

Odessa is the most frequented port of the Russian Black Sea coast. There is a good depth of water in the bay, but it is much exposed to the two most dangerous winds which blow on the coast, viz. the south and the south-east. The outer harbour is formed by a mole known as the eastern mole, which has a curve to the eastward, and a detached breakwater 1,400 yds. in length parallel with the shore. The eastern entrance has 24–30 ft. of water, and the western 17 ft., and both have an entrance width of 300 yds. This outer harbour is safe from all winds, and gives commodious anchorage.

The inner harbour is formed by five moles which divide it into four parts. The two western moles

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

form the Imperial or Pratique port, the two eastern moles the Quarantine port, the intervening spaces forming the New and Middle harbours. Three-quarters of a mile to the northward is the Petroleum harbour, sheltered by a long mole. Vessels can load up to 26 ft. in the New harbour, up to 21 ft. in the Middle harbour, and up to 24 ft. in the Petroleum harbour. 504

There is quayage of 4,550 ft. in length in the Pratique harbour, 3,245 ft. in the New harbour, 4,550 ft. in the Quarantine harbour, and 900 ft. in the Petroleum harbour. There is adequate crane-power and railway accommodation alongside the quays, with extensive warehouses and two large grain elevators. There are two floating cranes, each of 25 tons capacity. The port has a floating dry-dock, 381 ft. long, 63 ft. wide, and 19 ft. 6 in. in depth, with a lifting capacity of 4,800 tons. There are two patent slips for small vessels and a repair yard for light repairs.

Many improvements have been projected, including an additional breakwater for the outer harbour and longer quayage in the Middle and Petroleum harbours.

Nikolaev is a river-port situated on the east bank of the Southern Bug. There is a depth of 25 ft. in the river channel up to the town. The granite quay of the commercial harbour is 3,850 ft. in length, and has 26 ft. of water alongside. There are two grain elevators and a good number of cranes. The Cabotage harbour is dredged to a depth of 17 ft.; it is only used by coasters or vessels wintering in the port. A petroleum pier, 900 ft. long, with reservoirs adjacent, is situated above the town.

A new commercial quay, 2,400 ft. in length, was almost completed in 1914. Another, 1,650 ft. in length, was then in construction, but progress on it was reported to be slow.

The naval port and arsenal are situated on the northern side of the town on the banks of the River Ingul. There is a depth of 25 ft. in the naval port. The heaviest marine repairs can be undertaken. [704]

Kherson is situated on the Dnieper, some 15 miles

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

504 from its mouth. There are two entrances from the sea, the Rvach and Zbarev channels, the former being 22 ft. deep, the latter only 10 ft. There are three loading berths at a quay, respectively 420, 125, and 425 ft. long, but vessels mostly load in the stream from lighters by means of floating cranes, of which there are 22, or by using their own winches. Vessels are allowed to load up to 23 ft. owing to a recent improvement in the channel. A new quay to accommodate 18 steamers is under construction.

Berdyansk roads are protected by a long semi-circular sand-spit from all winds except the south-west. There is 14–16 ft. of water in the roads. The harbour is protected from all winds by a breakwater 700 yds. in length, parallel with and half a mile distant from the shore line in front of the town. A dredged channel, 1½ miles in length and 10½ ft. deep, leads up to the western end of the breakwater. Quay space is at present deficient, but a first-class port is projected and partially under construction. The harbour is being dredged to increase its general depth to 20 ft.

Mariupol harbour consists of an area on the open foreshore enclosed by two moles. The entrance channel is dredged to a depth of 24 ft., and the depth in the anchorage inside the moles is 22–26 ft. Within the harbour, 440 yds. from the shore line and parallel with it, is a breakwater 500 yds. long. The inner harbour inside this breakwater is reserved for vessels loading coal Against the quays, where rails run alongside, there is a minimum depth of 12 ft. and a maximum of 24 ft. There are two hydraulic elevators for loading coal, but much coal and all grain is loaded by hand, and mechanical appliances are greatly needed. Mariupol is considered a harbour of first-class importance, and extensive improvements of all kinds are projected.

505 431 *Nature and Volume of Trade.*—Odessa, Nikolaev, and Kherson export cereals and other agricultural products; Nikolaev also exports great quantities of iron-ore and Kherson timber. Many vessels arrive in ballast

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

to carry these goods. The imports consist of machinery, manufactured goods, colonial and tropical products, and chemicals; Odessa also imports coal from the Donets region, which is shipped at Mariupol or Taganrog.

The export trade of Berdyansk is chiefly coal, iron-ore, and grain. Mariupol principally exports Donets coal. The imports of both places are general, but a large proportion consists of chemicals and particular minerals required in the iron and steel industry in the Government of Yekaterinoslav.

The number and tonnage of the vessels entering the above-mentioned ports in 1910, and the amounts of the exports and imports, are shown in the following table:

	Total vessels entered.	*Tonnage.*	*British vessels entered.*	*Tonnage.*	*Imports (tons).*	*Exports (tons).*
Odessa	848	1,596,217	174	388,136	566,743	1,736,029
Nikolaev	544	1,126,441	315	676,834	178,790	2,070,419
Kherson	152	330,260	131	288,789	104,693	844,919
Berdyansk	180	269,365	38	65,492	28,693	416,451
Mariupol	231	394,451	67	119,242	266,693	1,587,161
				Total	1,145,612	6,654,979

The respective values of the exports and imports are more difficult to ascertain, but the difference in value is certainly not so great as that in weight. For some years before the war, the value of the exports of the whole of Russia exceeded that of her imports by about 40 per cent., and the proportion for the Ukraine ports is probably about the same.

Adequacy to Economic Needs; Possibilities of Development.—The Ukraine Black Sea ports would appear, on the whole, to be equal to the demands put upon them; in fact, there is severe competition between Odessa and Nikolaev. The recent improvements at Nikolaev have inspired the Odessa authorities to apply for powers to carry out great extensions, but so far these have not been granted, as the central authorities held that there was no prospect of a good return on the capital that would be required.

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

504 The port of Kherson is handicapped by the expense and difficulty of keeping open a good channel from the mouth of the Dnieper to the town.

The two Azov ports are in a somewhat congested state, and need additional quay space, loading appliances, and powerful ice-breakers. Their importance for the export of coal and iron-ore as well as of grain is recognized, and it is understood that large sums would be forthcoming to effect improvements.

Two other ports in the Ukraine which are very suitable for development are Ochakov, on the north bank of the Dnieper–Bug estuary, and Shadovsk, which is situated in a land-locked bight a few miles west of the isthmus of Perekop. At present neither is touched by any railway, and they offer no facilities to shipping; but they are so favourably situated that their development at reasonable cost would probably be more beneficial to the Ukraine than expensive improvements at Odessa and Kherson.

(*b*) *Shipping Lines*

505 Before the war Odessa was visited by regular lines of steamers with passenger services, and the other ports by 'tramps' exclusively.

There are several Russian-owned lines. The Russian Volunteer Fleet Association, a subsidized undertaking, made regular voyages between Odessa and Vladivostok with a view to developing trade between Russia and her possessions on the Pacific. This line, which has a fleet of 70 vessels, with a tonnage of about 150,000, is not a commercial success.

The Russian Steam Navigation and Trading Co. provided passenger services in the Black and Azov Seas, and had other lines to Mediterranean ports. Its fleet consisted of 65 vessels, with a tonnage of 150,000.

The Russian Transport and Insurance Co. had a fleet of ten vessels, mostly tramps, with a tonnage of 12,000.

Peter Regier & Son had nine tramp steamers, of a total tonnage of 22,000.

505 as the Dnester, Bug and Donets, because it is not regulated. The Donets has too little water to assume the importance it could have as the only river in the industrial area.

504 Odessa is the most important seaport of the Ukraine, and next in importance comes Novorossiysk on the Caucasian coast. Both of them turn over more than two million tons of goods annually. Next come Mykolayov at the mouth of the Bug and Maryupil on the Sea of Azov, with a turn-over of more than a million tons annually, as well as Kherson at the mouth of the Dneper and Theodosia in the Crimea with more than half a million tons each.(124)

124. Kubiyovich: Atlas, page 48.

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000 When workers are satisfied with their jobs and the general living conditions of their dwellings, they do not like to change. Constant change of a crew of workers of an enterprise is a definite sign that something is wrong, that the workers are not satisfied. For the employers it is no pleasure constantly to be obliged to train new

4C4 people and test their reliability. In the Ukraine workmen very often leave factories and pits in order to find employment in other enterprises. The official organ of heavy industry 'Za Industriyalizatsiiu' writes about this on December 15, 1936: "The fluctuation of workmen in the Donets Basin is enormous. It even exceeds that of former years. In eleven months of 1936, 231,000 new workmen moved to the coal pits, while 233,000 moved away; again in 1935, 210,000 came, 219,000 left. The crew changes all the time... People also leave the mines because of low wages. /17%/ In pit number 18 many of the workers hired, earned only 100 to 200 rubels a month. Disorganization

IV UNRRA ASSISTANCE TO THE UKRAINE

Distribution of UNRRA Supplies

648 731 UNRRA supplies for the Ukraine are handed over to the government at the port of entry (usually Odessa on the Black Sea); and the government is then responsible for arranging distribution.

648 731 647 Like most other countries receiving UNRRA help, the Ukrainian Government has established a special organization to supervise the reception, warehousing, and distribution of all UNRRA goods received. This organization - which has on its staff specialists in food, industrial equipment, agricultural rehabilitation, food processing machinery, medical supplies, transport, accounting and distribution - is called the Department of UNRRA Supplies, and is directly responsible to the Ukrainian Council of Ministers.

The Department (headed by Mr. V.V. Khomyak) works in close liaison with the various ministries of the Ukrainian Government, and with the UNRRA Mission. On the basis of decisions made by the particular ministries concerned, it draws up plans for the distribution of UNRRA supplies and keeps a central record of their sales and of the proceeds expended by the government for further relief projects.

5:4 648 731 Most UNRRA shipments for both the Ukraine and Byelorussia have arrived through the port of Odessa; and since early 1946 an UNRRA officer has been stationed there to handle problems connected with delivery. Before an UNRRA shipment comes in, the authorities at Odessa are notified of the ship's name, its expected time of arrival, and the nature of its cargo. As soon as possible after the ship lands, discharging of cargo begins. Stevedoring labour is supplied by the port commander's service organization, "Inflot", which also furnishes checkers to work in the ship's hold and on the docks, counting the supplies and reporting any damaged goods. As the cargo is unloaded, perishable items, such as clothing and cheese, are placed in warehouses on the docks, and seeds in a warehouse in the suburbs of Odessa. Packaged goods, such as canned meat, army rations, and juices, are piled on the dock at shipside and finally into freight cars.

648 731 Directives for the distribution of the supplies (based upon decisions of the recipient ministries concerned) are issued by the Department of UNRRA Supplies to the Ministry of Foreign Trade representative in Odessa, whose office then instructs the railroad and barge authorities, providing such information as the name and location of the organization or governmental authority receiving the supplies, and a description of the goods to be delivered.

[655] UNRRA relief supplies are either sold to individual ration-card or permit holders, or distributed to collectives, co-operatives, and other

to end) only 202,585 gross long tons of UNRRA supplies had arrived in the Ukraine. These consisted mainly of foodstuffs (three-fourths of the entire tonnage); while slightly less than one-tenth was made up of clothing, textiles and footwear; and 67 tons were medical equipment. Despite the urgent need of agricultural and industrial supplies, only 15,336 and 13,249 tons respectively had reached the Ukraine by the end of June.

By the end of January 1947, UNRRA shipments to the Ukraine from all sources amounted to 407,125 gross long tons; and the UNRRA Mission to the Ukraine reported that 372,796 tons of this had reached Soviet ports. Delays in shipments during December and January were greater than usual because the port of Odessa for the first time in many years was frozen over, and ships lay icebound for days.

The following table shows UNRRA shipments in comparison with the programme.

TABLE XXII

UNRRA Shipments to the Ukraine up to January 31, 1947

	Programme (thousand U.S. dollars)	Shipments to January 31, 1946 (thousand U.S. dollars)	(gross long tons)
Food, feed, soap	100,189	94,587	287,519
Clothing, textiles, and footwear	16,856	16,801	15,095
Medical and sanitation	2,326	1,858	373
Agricultural rehabilitation	17,088	14,403	29,070
Industrial rehabilitation	51,591	34,077	75,068
Totals	188,050	161,726	407,125

Source : UNRRA Headquarters, Washington.

Industrial Rehabilitation Supplies

As the table shows, 75,068 gross long tons of the total supplies shipped by January 31 were industrial rehabilitation equipment. These supplies have, however, been extremely slow in arriving. Up to the end of June 1946 only 13,249 gross long tons had reached the Ukraine, including United States army surplus equipment of about 20 electric power stations and generators, as well as some raw materials, chiefly rubber, tin, lead, copper and other metals, and welding electrodes. A small number of machines for use in automobile repair shops, and about 90 motor cars and trucks had also arrived; but the slow delivery of machinery to transport materials and process building equipment was a serious defect, since much of the rubble of war damage had been cleared away, and the lack of such supplies was a hindrance to

23: Shabad N-4 (no date) 1951 R1 Soviet Union R1
Ukraine RD1

strongly developed. In the left-bank Poles'ye, land has long been cultivated and drained. There are occasional marshy and forested sections, mainly between the Dnieper and the Desna. The chief crops are hemp, tobacco, buckwheat, and leguminous plants. Orchard farming is important. The right-bank wooded steppe is the principal agricultural region of the Ukraine. It combines fertile black earth with a warm and moist climate, and the ready availability of phosphate fertilizer. The sugar beet is predominant and closely linked with the sugar industry. Among the cereals, rye, winter wheat, and oats are most important; potatoes and leguminous crops are also grown. The by-products of sugar refining and fodder crops support large livestock herds raised for dairy products and meat. The growing of fruit is of national importance. Vineyards lie in protected valleys near the Dniester River. The left-bank wooded steppe grows crops similar to those of the right bank. Sugar beets decrease toward the east and are gradually replaced by sunflowers. Similarly, winter wheat gradually makes way for spring wheat. In the southern steppes, where a drier climate prevails, wheat is the most important crop. Rye, corn, and barley are also grown, the latter mainly in the very dry districts. Along the Sea of Azov and westward to the lower Dnieper cotton has been introduced in recent years and is grown without irrigation. Ukrainian cotton is of rather poor quality and produces little fiber. Melons are grown to a great extent, and there are vineyards along the Sea of Azov coast and around Odessa. In the Carpathian realm, the northern foothills abound in wheat and sugar beets. Up-slope dairy farming is important. Agriculture is poorly developed in the Transcarpathian Ukraine. Large areas are covered by forests and pasture land. In the vicinity of the large metropolitan centers, such as Kiev, Khar'kov, L'vov, as well as in the densely inhabited sections of the Donbas, around Krivoy Rog, and along the Dnieper, truck produce and dairy farming are most important.

The intensely developed economy of the Ukraine requires a correspondingly well-developed transportation network. In view of the shallowness of most of the Ukrainian rivers, the railroads bear most of the load. The Ukraine has the densest rail network of the USSR, the chief centers being at L'vov, Kiev, and Khar'kov. Among recently completed lines and spurs, the direct Donbas-Moscow trunk is of the greatest significance. Only since 1932, when the construction of the *Dneproges* dam was completed and an artificial lake was created at the site of the rapids (a former obstacle to navigation), has the Dnieper become the

23: Shabad N-4 (no date) 1951 R1 Soviet Union R1
Ukraine R01

major navigable through route of the Ukraine. The major ports are Zhdanov and Osipenko on the Sea of Azov, and Kherson, Nikolayev, and Odessa on the Black Sea. Odessa is one of the major maritime trade centers of the USSR.

The Ukraine exports coal, iron and steel, grain, salt, and sugar, and imports cloth from Moscow and Ivanovo, precision tools from Moscow and Leningrad, lumber from Gor'kiy Oblast, along the Volga, or from the Belorussian SSR along the Dnieper, petroleum products from Groznyy (by rail and pipe line) and from Baku (by sea via Batumi-Odessa), and fish from the Lower Volga.

Oblast Survey

The twenty-five oblasts of the Ukrainian SSR can be grouped into seven geographic regions on the basis of physical, economic, and historical factors: the right-bank and the left-bank sections of the wooded steppe, the Donets Basin, the Dnieper bend, the Black Sea lowland, the Ukrainian Poles'ye, and the Western Ukraine.

THE RIGHT-BANK WOODED STEPPE

The right-bank wooded steppe, which is the original settlement area of the Ukrainian people, includes the oblasts of Kamenets-Podol'skiy, Vinnitsa, and Kiev. Its fertile black-earth soils and the warm, humid climate have combined to turn the area into a region of intensive agriculture, a dense population, and a well-developed rail network. Sugar beets are the leading crop. Through careful tilling of the soil, the application of phosphate fertilizer, and the rotation with grains and forage grasses, high yields are obtained which furnish up to three tons of sugar per 2.5 acres. The principal grains are winter wheat, rye, barley, and oats. Leguminous crops (peas, lentils, beans) are extensively grown to restore soil fertility. In connection with the intensive crop cultivation, the raising of hogs and cattle for meat and milk production is also very important. Forage grasses and the by-products of the sugar-refining and associated distilling industries constitute an excellent feed supply. Also connected with the sugar economy of the area are the lignite and peat industries, which fuel the processing plants, the quarrying of limestone (used in the sugar-bleaching process), and the mining of phosphorite, which is converted into fertilizer.

23: Shabad N-4 (no date) 1951 R1 Soviet Union R1
Ukraine R01

region, having 35 percent of the reserves of the USSR, and the site of soda works.

Debal'tsevo is one of the chief rail centers of the Donets Basin.

Chistyakovo, to the south, is a major coal-mining point.

Zhdanov, called Mariupol' until 1948, the principal port for the Donets Basin, on the Sea of Azov, is the seat of the new Azovstal' metallurgical works, one of the largest of the region. It also has the Il'ich works, which produce special steels, shipyards, and fish canneries.

Voroshilovgrad Oblast

Area, 10,300, population, 1,800,000

Voroshilovgrad Oblast is the easternmost division of the Ukrainian SSR. It includes the eastern portion of the Donets Basin and extends northward into a typical Ukrainian wheat and sunflower region. Most of its coal mines produce anthracite.

Voroshilovgrad, formerly called Lugansk, has large locomotive works and metallurgical and pipe-rolling mills and produces enameled goods and mining machinery.

Voroshilovsk (formerly Alchevsk) has metallurgical and coking industries. Just south is the coal-mining city of Parizhskaya Kommuna [Paris commune].

Kadiyevka, called Sergo from 1935 until 1948, and Krasnyy Luch are the two main coal-mining centers of the oblast, with many large satellite towns grouped near by. Almaznaya, southwest of Kadiyevka, produces special steel alloys. Lesser coal centers in the southeastern section of the region are Krasnodon, Sverdlovsk, and Roven'ki.

Rubezhnoye, in the northern coal district, on the Northern Donets, has large chemical (explosives) works, and produces paints and glass.

DNIEPER BEND

The Dnieper Bend, which includes Dnepropetrovsk Oblast and the adjacent section of Zaporozh'ye Oblast, is the second center of heavy industry in the Ukraine. Metallurgy, which is largely based on Krivoy Rog iron ore and Nikopol' manganese, is the principal branch of the industry. It receives its coal and flux materials from the Donets Basin. Unlike the Donbas, which frequently suffers from a shortage of water, it is amply supplied with water from the Dnieper River, which is also the source of most of its electric power. The main industrial centers lie

23: Shabad N-4 (no date) 1951 Rl Soviet Union Rl
Ukraine RD1

SU 133* U 133 SU 241 U 241 tion. It lies between the Dniester River and the Kiliya arm of the Danube delta and has Moldavian minorities in the northwest and Bulgarian elements in the west, near Bolgrad. The main crops are wheat, barley, and corn in the northwest, where sheep are also extensively raised. Near the Black Sea there are large vineyards and orchards. The oblast is one of the most important wine-producing districts of the USSR. Along the coast there are fisheries and saltworks. Building materials constitute the only mineral resources.

SU 438* [504] U 438 [504] Izmail (Rumanian *Ismail*) is a port and a fishing center on the Kiliya arm of the Danube delta. It produces caviar and has an active grain and lumber trade.

Kiliya (Rumanian *Chilia Nouă*) is a fishing port on the Danube delta, east of Izmail.

Belgorod-Dnestrovskiy (Rumanian *Cetatea Albă*) was known as Akkerman until 1944. It is a port on the Dniester Liman, trading in wine, fish, and wool. It has fisheries and saltworks and is surrounded by vineyards and orchards.

POLES'YE

SU 311 241 U 311 241 The Ukrainian Poles'ye, which includes the oblasts of Zhitomir and Chernigov and the northern sections of Kiev and Sumy oblasts, is distinguished by a relatively high humidity, wooded terrain (especially in the west), and podsolic soils, similar to its Belorussian counterpart, which adjoins it in the north. Among the sparsely settled population, industries are poorly developed. Intensive crops are grown in the forest clearings, including flax, hemp, potatoes, and forage crops, which support some dairy-cattle herds. In the south, along the border of the wooded steppe zone, sugar beets and tobacco are cultivated. The Poles'ye is the only Ukrainian region (not counting the western oblasts, which have not been long exposed to the Soviet planned economy) where rye acreage exceeds that of wheat. Buckwheat is also grown as a local food staple. Industry is largely based on agricultural and lumber resources. Among the food industries, starch processing and distilling are the chief activities. There are woodworking and furniture plants, porcelain works, tanneries, and hemp and flax retting installations. Among the mineral resources, one should note granite, sandstone, used in the making of refractory bricks, and labradorite. Peat extraction is important as a fuel basis.